



DEPARTMENT OF POLITICAL SCIENCE

Decentralization- a route towards gender balance in municipal politics?

Decentralization and wider women representation in municipal assemblies: evidence across countries.

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Abstract

This paper explores the relationship between the level of decentralization and women's political participation in local politics. Using the OLS regression analysis I ask whether fiscal decentralization fosters more gender-balanced politics at the municipal level and whether the quality of public service serves as a mechanism through which the relationship works. The following hypotheses are tested: H(1) A higher level of decentralization is positively associated with the higher share of women councilors in municipal assemblies. H(2) Higher vulnerabilities in public services negatively affect the proportion of women in municipal assemblies. H(3) Decentralization has a positive effect on the quality of public service provision. The rationale for hypothesis testing lies in the promises of decentralization to bring about the efficiency of public services (through the “preference matching and allocative efficiency” hypothesis) and the common idea that the failure of governments to provide good quality public services increases gender inequalities. To test the abovementioned hypothesis, cross-sectional data were collected on 40 European states accompanied by Turkey and Israel. Findings point to the correlation between fiscal decentralization and women's political presence. Also, tax revenue decentralization is a statistically significant variable in explaining the quality of public services. However, evidence for public services to be a determinant of women's political empowerment in municipalities was not found.

Keywords

Women's political representation, fiscal decentralization, municipal level, gender and politics.

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1.Introduction

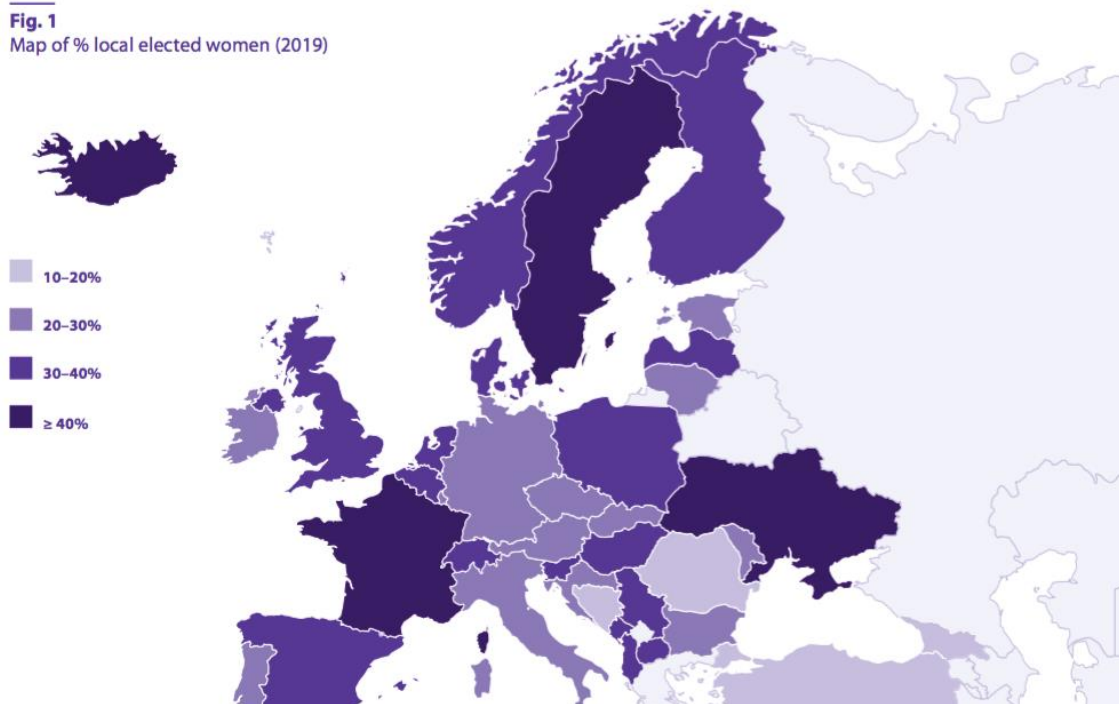
A global trend of decentralization conceptualized as the "transfer of authority from central to local government" has been notably present in recent decades (OECD 2019). This type of state architecture is highly recommended by many influential International organizations with agenda-setting power. There is broad agreement among these organizations on the main objectives with decentralization of states: 1) Improved efficiency in government service delivery; 2) Increased transparency of service providers; 3) increased accountability of service providers to its population (World Bank; IMF, UN). Hence, more and more people experience multilevel governance.

Accordingly, there is high interest among political science scholars concerning the effect decentralization has on different political, social, or economic outcomes. In a general sort of way, political science scholars have agreed that decentralization generates development (O'Neil, 2005; Faguet, 2004; Blair, 2000). Yet, whether decentralization increases women's political advancement as one of United Nation's Sustainable Development Goal ("Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life") is largely overlooked.

Regarding women's political representation, the general picture is that in Croatia, Denmark, Estonia, Finland, Georgia, Germany, Greece, Lithuania, Serbia, and Slovakia women are currently holding offices as the heads of government or the heads of the state. In Moldova and Finland, both the elected president and the elected prime minister are female. Women as high officials is a noteworthy phenomenon and one may assume that it is an indicator of more balanced gender relations in a society. But a closer look reveals that among these states, only Estonia has reached the 30% of women's presence in sub-national assemblies. Not to mention the example of Georgia, headed by female president Salome Zurbishvili. Women in this state, are remarkably missing from both tiers of sub-national government. In terms of the average municipal representation, women in Georgia occupy only 8,7 % of all seats. In Croatia, the proportion of women among all elected representatives consists of 26,3 %, and in Slovakia 25,8%(CEMR 2019).

Women's underrepresentation in sub-national legislatures is true not only for Estonia and Georgia. It seems to be a general trend in Europe and its neighboring states. Figure 1 presents a visualization of this trend.

Fig. 1
Map of % local elected women (2019)



Source: Council of European Municipalities and Regions (2019)

This is regardless that the principle of equality between man and women was introduced already in 1957 in the treaty of Rome depicted in the requirement of equal pay for work of equal value. Also, equality between men and women presents one of the European Union founding values that are common for all the EU member states. This principle has a place among other core values such as democracy, rule of law, human dignity, human rights, and freedom.

However, until now, no European country has reached perfect parity (50%-50%) at the municipal or the regional level government, some improvement has been seen, though. In 2019, the average proportion of local female municipal councils (or equivalent) was around 29% compared to the 23,4 % in 2008 The same trend applies to women's representation at the regional level. The average share of women members of regional assemblies increased to represent more than 30 % of the total.

Yet, the proportion of female mayors (or equivalent) remains very low. On average, women account for no more than 20 % of mayors or equivalent. The same trend applies to women's political representation at the regional level. The proportion of women presidents of regions remains a great deal lower than women elected to the regional assemblies (CEMR 2019).

Remarkably, differences between countries concerning female political representation at all levels of government are significant. According to the latest data, in sub-national assemblies, the

share of elected women in Turkey is 10,7 % meanwhile in Iceland, at the same positions, women councilors take 47% of seats. The difference is significant even when comparing non-EU member states, with a similar political background. In post-soviet Georgia, the average share of women holding offices in sub-national assemblies consists of 13,4 % while in post-soviet Ukraine, women hold 41,7 % of all seats (CEMR 2019). Hence, there is a great need to closer consider factors contributing to or hindering gender balance in regional and local politics.

The importance of gender balance at this level of government lies in the equal representation of both men's and women's interests. The absence of women from decision-making positions may lead to gender-blind policies designed only for men, in which women may stay marginalized. Therefore, the individual preferences of both gender must be represented so that public expenditure and the outcome can benefit both. Especially, when local level decisions are of vital importance for women. Many of the policy areas under the mandate of municipalities such as daycare, schools, public transport, among others shape women's everyday lives (Asian Development Bank 2018). Furthermore, sub-national politics can serve as a stepping stone for women towards national parliaments through gaining experience. The increased number of women in sub-national assemblies may have a “spillover” effect on national representation.

Given that in contemporary Europe there is a gap in gender representation between national and municipal legislative bodies¹ and the fact that decentralization, inevitably creates opportunities for local participation in politics, it is reasonable to explore if the representation of both genders is more balanced at this level in the states with a higher decentralization index. More detailed reasoning for the need to account for decentralization as the explanatory factor will be provided in the theory section.

It follows that the main research question of the paper is whether decentralization fosters more gender-balanced politics at the municipal level.

The study aims to provide a quantitative assessment concerning the relationship between mainstream politics, decentralization, and the government's attempt to improve equal participation and representation of both genders in politics. It also aims to find a mechanism through which this interaction may take a form. If the relationship between these variables will be proven, it will be an edifying piece to the arguments for decentralization and will contribute to the feminist literature about the most favorable state architecture for women's recruitment in

¹ In the CEMR member states, on average, more women participate in local government than in national parliaments. In 2019, on average, women municipal councilors composed 29% of the government compared to 25.9% in the national parliaments.

politics. It will also provide an instrument for policymakers to act towards more gender-balanced politics.

The paper proceeds as follows. The next section briefs major literature on the selected topic followed by justification for hypotheses to be tested. I then describe the data and method used for hypotheses testing. Then the results are reported. The paper ends with a discussion of findings and important themes for future researches.

2.Literature Review

Studies addressing the representation of women in national parliaments

Factors contributing to women's political representation at the national level have been extensively studied suggesting several different explanations for the variation in the share of women in parliaments. In general, literature on women's representation considers explanatory variables including institutional arrangements such as the type of electoral system or the presence of legislated gender quotas (Dahlerup, 2006; McAllister & Studlar 2007), socioeconomic variables such as the level of economic development or women labor participation (Iversen & Rosenbluth 2008), type of parties organizations (Fox & Lawless 2010), the level of democracy (Tremblay 2007; Wideroth, Castillo, and Bagdasar 2017) to mention a few.

Studies addressing the representation of women in sub-national politics

Few studies are focusing on factors contributing to and hindering women's representation in sub-national politics. Brige (2000) introduces campaigns by non-governmental organizations as an explanatory variable for variance in locally elected women. Sundström & Wängnerud (2014) in a cross-country analysis find evidence for the relationship between quality of government and the share of seats held by women in municipal assemblies. A more extensive study is provided by Sundström and Stockemer (2015). Scholars look at the structural and cultural variables determining variance in female representation in the regional tier of government. The research covers 29 European countries with 272 regions at focus. Among explanatory variables that scholars examine are female labor force participation, population density, electoral strength of radical right-wing and leftist parties, development, voluntary party quotas, legislative party quotas, and electoral system. Interestingly, the authors account even for federalism as an independent variable. Here federalism is a dummy variable and describes if a country is federation or not. However, the scholars didn't find support for federalism to be a determinant of variation. Instead, they find that voting patterns

for parties, population density, women's labor force participation, and women representation in parliaments explain women's political representation.

Furthermore, numerous arguments are provided by scholars as to why there may be more women in municipal assemblies compared to national parliaments. Most of them focus on increased access local government provides for women. For instance, Norris and Lovenduski (1995) state that Municipal government is the most appropriate level of government for women in terms of better logistics. Since women have certain familial responsibilities such as responsibility for childcare and homemaking, they face a complex set of choices discouraging them to participate in politics far away from their familial demands. The local government is geographically closer to women's homes. Hence, women's recruitment in politics is more likely. Evertzen (2001) makes similar statements and adds that local level government is more accessible for women because the perceived masculine culture of parliament is easier to overcome at this level. The latter is because women are more active participants in neighborhood associations. Therefore, participation in municipal government may be seen as the extension of women's involvement in neighborhood activities which leads to acceptance of women as politicians. However, these arguments remain propositions and empirically are not tested.

Studies addressing the relationship between state architecture and gender equality

There is extensive literature on federalism and gender. For example, Lang (2010) studies the relationship between federalism and women agencies and policies in Germany concluding that sub-national autonomy brings about losses instead of gains. To the author, this happens due to policies that are key for social citizenship is under the mandate of sub-national units leading to difficulties in following up policies. Williams (2018) with a linear regression analysis tests the relationship between federalism and the UN's gender inequality index. The scope of the study was limited to 24 of the 28 federal states², only including the ones experiencing a higher gender inequality index. Findings suggest that federalism as the constitutional design is neither good nor bad for women in terms of gender equality in the constitutional design.

² Argentina, Australia, Austria, Belgium, Bosnia and Herzegovina, Brazil, Canada, Ethiopia, Germany, India, Iraq, Malaysia, Mexico, Myanmar (Burma), Nepal, Pakistan, Russia, South Africa, Spain, Switzerland, Tanzania, United Arab Emirates, United States and Venezuela

Regarding federalism as an explanatory variable, Gray (2006:38) pointed out that literature on state architecture and gender “is missing important evidence”. This “missing evidence” according to the author is due to focusing merely on federalized states and not considering decentralized, unitary states, some of which demonstrate decentralization as far-reaching as federations. To clarify, the main differences between the concept of federalism and decentralization lies in which entity (regional, provincial or central government) has the power to decide the level of devolved power. Sub-national governments in federal states constitute self-governing entities. As long as regional or provincial governments share some power and the constitutional law with the central government they can themselves decide over the level of autonomy they want to be granted (Williams 2018:493).

For this paper, it is not appropriate to look at federalism. The reason is that within the scope of this study, only five states constitute federations³. There is no consistent pattern of greater decentralization or women's political recruitment in these states. These states do not necessarily devote a high level of financial independence to local units⁴. Also, these states do not stand out as a prominent example of gender balance in sub-national politics⁵. To this background, I will be focusing on decentralization as an explanatory variable.

Few studies focus on decentralization as an explanatory variable. For instance, the work presented by Orbals, Rincker, and Montoya (2012) explores the relationship between decentralization and women's political participation. Scholars are focusing on the meso-level institutions (between municipal and national governments) in Spain, Poland, and Italy, all of which introduced decentralization between the 1970s and 2000s. Women's representation in legislatures is explored together with the women's policy agencies and women's movement organizations. The comparative analysis shows that decentralization doesn't necessarily ensure an increase in female participation. Instead, an increase in political representation is a product of gender candidate quotas and proportional electoral laws. However, findings suggest that feminist activism became more apparent in peripheries since decentralization, implying a significant potential for women.

³ Austria, Belgium, Bosnia & Herzegovina, Germany, Switzerland

⁴ Tax revenue decentralization in Belgium is 0,22, in Bosnia and Herzegovina 0,11 compared to the Czech Republic that is a unitary state with a 0,27 index.

⁵ For example, in Germany, at the sub-national level, on average women hold only 28% of seats. Not to mention the Federation of Bosnia and Herzegovina with only 18,3% female representation. Meanwhile, countries with the highest representation of women at the sub-national level are Iceland with 47.2 %, Sweden with 45,45%, and Ukraine with 41.7%. All of them unitary states.

Another interesting study focusing on decentralization in Spain and Britain is provided by Kenny and Verge (2012). To scholars, since political decentralization gives a rise to changes in party organization, it opens up new possibilities for women. As political parties are the main “gatekeepers” for who may be elected in the office (at least in parliamentary democracies), the party organization is explored as the intervening variable between decentralization and the adoption of gender party quota. To authors, the existence of a party gender quota automatically means wider female participation in politics. Findings suggests that the impact of the decentralization on party organization which determines if the quota will be adopted or not is moderate.

Given the fact that candidate selection is up to the political parties, this lens is undoubtedly useful in exploring the relationship between decentralization and women's political representation. But it does not mean that every analysis of decentralizing reforms should look at party reorganization as a pathway between decentralization and voluntary party quota. When voluntary adherence implies variation in compliance, one cannot confidently interpret voluntary party quota as widening in women's political participation, because the voluntary party quota is only binding for the individual parties that adopt them. Especially, we cannot overestimate voluntary quota's influence on representation in municipal governments. In conditions, where even political parties in Sweden⁶, reported difficulties to find qualified candidates at the local level (Directorate General for Internal Affaires 2011), one cannot expect high compliance from other states.

There are alternative, important mechanisms through which decentralization may affect women's political representation. As the main objective of decentralizing reforms is to improve the delivery of public services, that is associated with a “welfare state” (Orloff 1996), one may take a closer look at how these services may affect women's political empowerment. Especially when a lot of empirical evidence suggest that the welfare state affects gender relations in varieties of ways. The common understanding of the welfare state is that it ameliorates social inequalities, including gender inequalities (Orloff 1996).

2.1 Research gap

As outlined, previous studies came to a different conclusion regarding the role federal or decentralized states play in women's political participation. The latter points to the need for an alternative approach. As we could see, the literature on the connection between state

⁶ As covered above, Sweden ranks among the highest in terms of gender representation in politics. Furthermore, the Sweden government proclaimed itself as a feminist government.

architecture and women's political empowerment largely exhibits country-specific observations and presents empirical evidence drawn from a single case or comparative studies. Contrary to existing researches, I will perform quantitative data analysis across 40 countries. This enables to widen the analysis accounting for different electoral systems, political cultures, development level, and other explanatory variables which showed to be important in generating gender balance in politics.

Additionally, the research gap exists in terms of the use of public services as a hypothetical variable to explain the causal link between decentralization and women's political participation. Hence, this study will fill up these missing pieces in the research literature.

3. Theoretical background and hypotheses

3.1 Central concepts

In this study, the relationship of main interest presents the effect decentralization has on women political participation hence, the following are the central concepts:

Decentralization

Decentralization is commonly assessed on three classical dimensions. Political, administrative, and fiscal. Political decentralization gives sub-national authorities more power over policymaking. Administrative decentralization is assessed through indicators for freedom of local officials for recruitment, contract out their own responsibilities, and freedom to regulate activities, among others. However, fiscal decentralization signifies “devolution of fiscal powers from national to sub-national governments.” (World Bank 2020).

The popularity of decentralization studies has led to the increase in the creation of decentralization measurements. As a result, the field became complex with various overlapping indexes. However, all these indexes integrate fiscal variables, making fiscal dimension central for measuring decentralization (Baptiste et. al 2019:5-9). The rationale for focusing only on fiscal decentralization is that local governments' autonomy in the subnational government is largely determined by their financial independence. The greater the financial freedom, the greater the power to influence. Furthermore, fiscal dimensions of decentralization are reliable and easily comparable (Baptiste et. al 2019:4). For this reason, the fiscal dimension is widely used by scholars as a proxy for the level of decentralization (Pryor 1968, Oates,1972, Panizza,1999). With regards to the importance of the alternative dimensions of decentralization, a comparative study shows that some level of administrative and political decentralization is present almost in all MENA states but public services continue to suffer (Vollmann & Erlangen-

Nürnberg 2020). To authors, this happens due to the fiscal decentralization failure. When municipal authorities lack financial resources and heavily depend on central government transfers for funding of public services, competencies on the paper are not of much use for them.

At the same time, Oates (1972) argues that the fiscal dimension says little about the real autonomy of sub-national units because it doesn't account for the extent to which relevant political decisions are under the mandate of sub-national government. To the author, power on spending and power on making political decisions are not the same. Stegarescu (2005) shares the same viewpoint by saying that ideally, indexes should include both the data on the fiscal variables and the data on sub-national intervention in certain policies.

As outlined, regarding the indicators of decentralization, the main issue for confrontation is the extent to which fiscal and political dimensions describe power-sharing between the center and periphery. I will discuss how these different indicators affect our outcome variable in the method part. First I need to introduce the intervening variable of the study.

Women's political participation in sub-national government

In European states, the sub-national government consists of three tiers of legislative bodies. The local (municipalities), the intervening (provinces), and the regional (regions) government. The intervening level of government is present only in five of the countries covered in this paper ⁷ making this level inappropriate for quantitative studies. Regarding the percentage of women in regional government, this tier of government could be considered but I choose to focus on the municipal level because fiscal decentralization in unitary (the ones that are not federal) states apply only to the municipal government. In contrast to the regional government, authorities at this level have both financial and legal means to implement and enforce decisions. Hence, women's political participation is operationalized as the proportion of elected female representatives in the highest governing body of a municipality, in the municipal council.

To clarify, municipal councilors are representatives of local self-government, making all the major decisions that affect the vital public services. Municipal responsibilities often include schooling, caring services for the elderly, cultural activities, community water systems, public transport, local police, roads, and parking among others. For example, it is in

⁷ Belgium, France, Hungary, Italy, Poland

the power of municipalities to provide quality childcare so that parents can effectively combine paid work with childcare responsibilities (Asian Development Bank 2018).

3.2 Predictions by reasoning

An increased level of decentralization increases the desirability of the local legislatures because a higher budget and the importance of the offices hang together with the attractiveness of these offices. In turn, desirability may determine if women will do better or not. If we refer to the “glass cliff”⁸ phenomenon, we would expect that countries with a low level of fiscal decentralization, experience more women in local governments, and those countries with a higher level of fiscal decentralization have fewer.

The abovementioned assumption can be challenged by the fact that decentralization is designed to improve public service delivery⁹. The quality of public services relates to the share of women in local politics since many of these services are women responsive (Martinez-Vazquez *et al*, 2012; UN Women, 2015a) and may disproportionately benefit them.

To start with, the underlying philosophy for decentralization is the improvement in public services (Shah & Thompson 2004). Empirical evidence suggests the effectiveness of subnational autonomy in generating improved provision of services. Although some scholars focus on the conditions under which decentralization is fruitful and some argue that power-sharing can increase corruption and coordination problems, this kind of reform tends to be associated with better quality of government (Fisman & Gatti 2002; Gupta & Gumber 1999; Heller, Harilal & Chaudhuri 2007). In a general sort of way, scholars distinguish two main reasons for this effect, allocative efficiency, and an increase in government accountability (Eaton et al., 2010). The former is thought to be possible due to the local government's informational advantage over the central government. The informational advantage over the local preferences implies that under limited resources, the government can choose the best option of goods and services (Musgrave 1969; Hayek 1945). Centralized states tend to have “one size fits all” policies, missing the unique needs of subunits. In stark contrast, in decentralized states, the cost and benefits of these services are fully internalized which improves allocative efficiency (Oates 1979). Furthermore, fiscal decentralization is also expected to improve public service provision through increased accountability. The

⁸ The glass cliff refers to the tendency of political parties to put women in power during precarious circumstances when the chances for success are unlikely. See Ryan & Haslam (2004).

⁹ As previously mentioned, the primary objective with decentralization is to adapt to local needs thereby improve public service delivery (IMF, World bank)

geographical closeness of the government to its people may put pressure on local representatives to search the ways for better investments fostering “productive efficiency.” These are some main arguments in favor of decentralization.

Producing and delivering better public services, in turn, may increase the number of women willing to participate in decision-making because women may disproportionately benefit from quality public services. For instance, women are thought to be disproportionately affected by improvements in infrastructure services because of the relationship between infrastructure services and how women spend their time. Given that women spend a large amount of time on domestic activities because of social roles attributed to them they face diverse needs. Infrastructure services include services that are utilized by individual households therefore adequate service delivery may disproportionately benefit their time use compared to men (Asian Development Bank 2015:3). For instance, good quality energy infrastructure for cooking and lighting or access to the water supply may reduce women's 'time poverty'. In turn, with more time, women may pursue education, training, economic activities as a stepping stone to politics.

It must be emphasized that women experiencing time poverty is not exclusive to the developing states. Allen (2012:711) showed that women municipal councilors in England and Wales are more likely to stand down after one term of office compared to men. Women across these countries are also more likely to refer to time pressure as the reason for dropping out.

Indeed, there may be a mutually reinforcing relationship between the quality of public services and the share of women in municipal assemblies. More women in local government imply more policies designed to meet women's needs (Asian Development Bank 2015:6). One example of this relationship is suggested by Bratton and Ray (2002). Scholars find that in Norway, municipalities with a higher share of women councilors provide better childcare coverage. Hence, all the more women may seek seats in local politics.

Improvements in public transport may also disproportionately benefit women since women and men have different transport needs. To start with, women access and use public transport differently compared to men. According to the report published by an Asian Development Bank, women use to have more trips with many stops due to combining economic activities with other responsibilities such as picking up children and buying household goods. Hence, vulnerabilities in public transport increase their time pressure. Furthermore, affordable and accessible public transport disproportionately improves women's lives because they are the main

users of it. For instance, in Georgia, outside the capital city, women are less likely to obtain driving licenses relative to men (Asian Development Bank 2018: XII-XVI). Hence, they are more likely to travel by bus and tram. It follows that improvement in public transport would imply uneven distribution of benefits favoring women.

Likewise, improvements in childcare services may improve women's reconciliation of family and work-life and therefore foster their income and career opportunities. Indeed, the importance of providing childcare services is acknowledged in the Commission's Strategy for Equality between Women and Men (European Commission 2020).

Improvement in healthcare services may also disproportionately favor women since they traditionally bear the burden to take care of family members getting sick (Asian Development Bank 2015:11). These are only some of the examples of how quality public services may lead to increased opportunities for women.

Besides these assumptions, in the scholarly literature, the “welfare state” is often conceptualized as the one providing daycare, housing, education, medical services, and other public services. In turn, the welfare state is associated with the elimination of gender inequalities (Orloff 1996). With this respect, Detrez and Peksten (2017) show that spending on key social welfare areas such as social security, health, and education increases both, the female labor force participation and the share of seats held by women in the national parliament.

In sum, women being part of gendered hierarchies in which they subordinate, with quality public services gain more benefits relative to men. In turn, their opportunities to participate in politics increases.

Motivational factors may also play a role in widening political participation among women. It is argued that local politics concern more issues of women's direct interest as they are the main users of local services (Evertzen 2001; Renihart 2001). As previously mentioned these services traditionally include public transport, waste disposal, water, schools, electricity, among others. Therefore, the increase in the budget may motivate more women to bring about changes. In turn, the increased number of women may seek participation in decision-making.

To this background, I argue that bolstering the economic independence and thereby the influence of local governments by means of decentralization contributes to an increase in women's political representation at the sub-national level. Therefore, I hypothesize that H(1) A higher level of decentralization is positively associated with the higher share of women councilors in municipal assemblies. H(2) Higher vulnerabilities in public services negatively

affect the proportion of women in municipal assemblies. H(3) Fiscal decentralization has a positive effect on the quality of public services.

The data and the method used to test these hypotheses will be presented in the following section.

4. Data and Method

4.1 Data

The data on women's representation in local government was collected by the European Commission, DG Justice, and the Council of European Municipalities and Regions (CEMR). All indicators for this variable are taken from the both the 2008 and 2019 datasets. I obtained the latter from the CEMR and the European Institute for Gender Equality (EIGE). The latter is an autonomous body grounded by the European Parliament and the Council of the European Union. Regarding independent variable, access to data for this variable is provided only by OECD and IMF and cover only the fiscal dimension of decentralization. Since OECD studies only its member was obtained from the International Monetary Fund's Government Finance Statistics (GFS) which provides information on all economies reporting to the institute. The year of data collection is 2018.

For this paper, I used standard cross-sectional, in the context of the paper cross-country dataset. Although the work intended to investigate the correlation of variables at the municipal level, both, the dependent and independent variables are averaged by geographic area to represent the national average. The latter also means that the state is the unit of analysis. Indeed, the use of aggregated data for the elected women in local councils has its advantages over the estimation of municipal differences. This is because the level of fiscal decentralization tends to be the same within state borders, while there may be differences in the proportion of women in municipal councils. Therefore, estimation of individual differences in representation wouldn't provide us with useful information about trends and patterns of this relationship.

The geographical scope of the study is determined by several factors. First, the data availability. Many states don't report their indicators of decentralization or women's political representation at all, some of them don't report in a detailed manner. Therefore, I had to narrow down the study to 41 states where the CEMR has members. These are 39 European sovereign states but also Turkey and Israel. See the list of states in [Appendix 1](#). Furthermore, I accounted for the data available for the independent variable. It appeared that no data is available for the

level of fiscal decentralization in Montenegro. Therefore, I dropped the latter. The data value for Serbian tax revenue decentralization is taken from the 2012 year dataset. However, since the level of fiscal decentralization is a relatively stable variable with minor fluctuation, I did not consider the latter to be a problem. One may wonder if small states with a population below 1.5 million can provide any level of decentralization. Iceland with a population of 341.24, Luxemburg with a population of 625.978, Malta with a population of 441.543 (World Bank 2020) is good cases in point. It appears that even these states are divided into municipalities. Iceland appears to include 72 municipalities, Luxemburg 102, Malta 68. It also appears that fiscal decentralization is typical even for these small states except Malta, whose fiscal decentralization index has always been close to zero (IMF 2018).

Data on the intervening variable, the quality of public service delivery is taken from the Fund for Peace measuring fragile states index. Data on control variables were obtained from a range of sources (See Appendix 1 for the names, year of data collection, and sources).

4.1.1 Dependent variable

I intended to operationalize women's political representation as a progression. In other words, as the increase in women's presence in municipal assemblies from 2008 to 2018 by calculating according to the mathematical formula $(\text{value in 2019} - \text{value in 2008}) / \text{value in 2008} * 100$. However, testing the relationship between the progression in female representation and the fiscal decentralization index wouldn't generate reliable results because of the different contexts of each state. In fact, the widening of women's representation may be influenced by factors beyond the level of decentralization. For example, the case of Albania is different from the conditions in other states covered by this study. In 2015, the Albanian government introduced legislative gender quotas at all levels of government with a requirement for a minimum of 30 % representation of each gender. Legal sanctions for non-compliance were attributed to the latter, implying a fine of 1000 000 Leke (IDEA 2020) (approximately 9,600 USD). Few can dispute that it wouldn't have an immediate effect on gender representation in politics. Another precondition that would cause non-reliable results is that many of the states, already in 2008 were performing a relatively gender-balanced political representation in municipalities.¹⁰ The latter means that one cannot expect the same progression levels in these states.

¹⁰ In 2008, the proportion of women in local assemblies in Belgium consisted of 33%, Finland 36,7%, Iceland 35,9%, Latvia 42,3%; Norway 37,5%; Sweden 42,2%, Ukraine 43 %.

The alternative way to capture the continuous nature of the variable is time-series analysis. However, in the context of this study, it would give less accurate results (For a more detailed discussion see method section 4.3).

To the abovementioned background, I considered the cross-sectional data most appropriate for the analysis. Instead of measuring progression, the applied year of data is 2019 (the latest), collected across 126953 municipalities (For details on the number of municipalities see Appendix 1). Values for the dependent variable represent the national average of elected women in local municipal assemblies. Unit of measurement is the percent of total representation.

4.1.2 Independent variable

Regarding the level of decentralization, as I previously mentioned, it is commonly measured on three dimensions. Fiscal, political, and administrative. To my best knowledge, only the IMF and OECD provide open access to the data on decentralization. In both cases, it is accessed on the basis of fiscal variables. Hence, I will be focusing on the fiscal dimension of decentralization. Given the importance of political decentralization in the formulation of policy plans, the failure to account for it presents the main limitation of the study.

Fiscal decentralization is usually presented on four measures: revenue, tax revenue, expenditure, and compensation of employees. Undoubtedly, expenditure and revenue decentralization together form a better understanding of the level of decentralization. This is because expenditure and revenue are the crucial components of any kind of financial activity. But, unfortunately, the data for expenditure decentralization is limited to a small number of countries. Therefore, I operationalize the independent variable as tax revenue decentralization.

Values in the dataset represent the national average of municipal tax revenue share and are expressed in percentages, based on several indicators. These are the sum of revenues from taxes including tax revenues from income, profit, capital gains, payroll, workforce, property, goods and services, and taxes on international trade and transactions (IMF 2018). In countries covered in this study, the tax revenue decentralization as the local share of general government ranges from 0 in Malta or 1% in Estonia to 20% in Switzerland. The higher the score, the higher the level of decentralization. The year of the data collected is 2018.

4.1.3 Intervening variable

The public service indicator is annually published by the Fund for Peace and measures the vulnerability in public services. The indicator includes the provision of public services such as health, education, internet, and connectivity, water and sanitation, electricity and power, transport infrastructure, general infrastructure, and security. Furthermore, the indicator considers the level to which these services comparatively serve rural versus urban populations. In other words, variable measures the degree to which governments failed to provide public services in 2019.

Indeed, for the EU member states, regulations for local and regional governments in terms of how public money can be spent are prescribed at the EU level (CEMR 2018). Nevertheless, the substantial differences in the vulnerability across the European states are the case. This variable is placed on a scale of 1 to 10 high value indicating higher vulnerability and a lower value indicating lower vulnerability. The data values within the EU member states vary from 3,8 In Bulgaria to 0,7 in Finland. Outside Europe, within the geographic location of this study area, Turkey with 4,6 leads in failing to provide quality public services (The Fund for Peace 2019).

4.1.4 Control variables

To address endogeneity concerns I teased out whether other variables are equally or more important determinants of female membership in local offices. The choice of the variables has its ground in previous observations or theories and logical reasoning. To ensure that the paper is based on a detailed analysis, political, legal and structural variables were taken into account.

Local Level control variable

Gender quota

Gender quota in politics represents the rule or regulation that demands a certain percentage or number of each sex to be represented in a political realm. Without going into details, two main types of quotas can be distinguished. Legislated gender quotas and voluntary party quotas. The main difference is that the former is a legal requirement for a minimum share of women on the candidate list. Meanwhile, a voluntary party quota implies a voluntary commitment of political parties to adopt gender quotas. In general, the data presented by the Institute for Democracy and Electoral Assistance (IDEA) reveals a mixed picture of gender quota

implementation, but half of the countries of the world have adopted one or several types of quota mechanism.

However, in Europe, gender quotas seem to be unpopular. In Western Europe, quota takes a form of voluntary party quota, except in Belgium and France. The same applies in Central and Eastern Europe. The discourse that gender quota regulations conflict with liberal democracy and the principle of merit ('let the best man (sic!) win') is considered to be the reason behind this resistance. According to the recently updated data by the Institute for the Democracy and Electoral Assistance (IDEA), of 32 countries covered by this study, only 11 introduced legislated quotas at the sub-national level¹¹.

Indeed, in the European context, states with the highest share of female representation at the sub-national level such as Norway or Sweden have no legislated gender quota. Yet, as the quota in some states is an accepted strategy to bring about changes in the old patriarchal structures in politics, I included legislated local level party quota as a control variable. Given that voluntary party quota implies variation in adherence and a closer look at each context, I considered it inappropriate for the quantitative study with the state as the level of analysis. Therefore, I excluded the latter from the analysis.

I obtained the data on gender quota from the IDEA that is the intergovernmental organization supporting democratic institutions around the world. Thereby, I created a dummy variable expressing the presence of a legislated gender quota at the local level.

National level control variables

Women's workforce participation

The argument that women's role in the labor market is an indicator of gender relations in a society is advanced in the literature on women and politics. (Ivertsen & Rosenbluth 2008; Matland 1998). To cite Matland, the more women achieve an advance in the workforce, the more traditional roles attributed to women as merely caregivers and housewives are outdated. The way women are seen in society may have a direct effect on the share of women in politics. It will at least increase the number of women candidates willing to run for election. When measuring the effect of national averages of workforce participation in Europe and women's participation in local politics, the variable has been shown to be significant (Wide 2006). To the abovementioned background, the inclusion of the variable in regression analysis is

¹¹ Albania (30%), Belgium (50%), Bosnia and Herzegovina (33%), France (50%), Greece (40%), North Macedonia (40%), Poland (35%), Portugal (40%), Serbia (33%), Slovenia (40%), Spain (40%)

reasonable. The data for the variable is secondary and is obtained from the World Bank. The original source is International Labour Organization (ILO). The values in the data measure the labor force participation rate of females, of ages 15+.

Corruption Perception Index (CPI)

Literature studying gender and corruption, to great extent agree that women are less corrupt than men. Women tend to perceive corruption levels as worse and more hardly tolerate corruption than men do (Agerberg 2014). Women are also less prone to pay bribes (Agerberg 2014; Frank et al 2011; Chadhuri 2012). Also, the evidence from the 18 European states' local councils suggests that the states with a high level of corruption perform worse in terms of women elected (Sundström & Wängnerud 2014). One of the reasons behind this correlation is thought to be that women are generally more risk-averse than men. Whatever the reason is, the consensus among scholars is on the importance of corruption as an explanatory variable for women's participation in politics. The controversy remains only regarding the direction of causalities of these relationships.

However, due to the extensive scholarly attention to the relationship between the levels of corruption and women's political representation, the corruption perception index is included as a control variable.

A high level of corruption is expected to have a deterring impact on the proportion of female local councilors. The CPI index measures the level of corruption in the public sector as perceived by country experts and businesspeople (transparency international 2021).

Proportional electoral system

The inclusion of the proportional electoral system as a control variable departs from previous studies stressing that this type of electoral system creates fewer obstacles to women's political representation compared to the majoritarian electoral system that is considered to be inimical (Matland 1998; Salmond 2006; Vengroff, Nyiria, and Fugiero 2003).

To account for this aspect I created a dummy variable expressing a proportional electoral system. The data was obtained from the Institute for Democracy and Electoral Assistance that provides data for the most recent elections. In the states covered by this study, recent switches from one electoral system to another didn't occur.

The Liberal Democracy Index (LDI)

The level of democracy has shown to be significant in explaining variations in the number of women elected in politics (Sung 2003; Tremblay 2007). Indeed, a high level of democracy has been shown to be more important in explaining variation in representation than the state-mandated gender quota does (Wideroth, Castillo, and Bagdasar 2017). Therefore, I included the level of democracy as an alternative explanatory variable in the regression.

I obtained data from the Varieties of Democracy Institutes '(V_Dem) database. This variable measures the extent to which the level of liberal democracy is achieved in its fullest sense. Protecting civil liberties, a strong rule of law, an independent judiciary limiting the exercise of executive power are some crucial components of the Liberal democracy index (LDI). Besides, the variable contains an electoral democracy index that considers free and fair competition during elections (Teorell et al., 2013). A higher LDI score indicates a higher degree of liberal democracy.

The Gross Domestic Product (GDP) per capita

It has been found that the level of economic development and the share of elected women in politics are closely related. In one direction, empirical evidence suggests that economic development has a positive impact on women's participation in political and electoral processes (Ballington 2003; WeDo 2007). In the other direction, more women in legislators show to have a positive effect on the economic development of the state. The former presents the reason for controlling for the level of economic development.

Furthermore, the economic factor is also important for our intervening variable. The quality of government public services is highly dependent on the existing economic resources.

To this background, in models testing H(1) and H(3), I account for per capita GDP. The variable reflects economic conditions in states of interest and is used as a proxy in describing the level of states' economic development.

The indicator exhibits the sum of all goods and services produced over a year and is expressed in international dollars (World Bank 2020). The data on GDP is obtained from the World Bank (World Development Indicators).

4.2 Method

To test the correlation of main variables and the underlying mechanism (intervening variable) I employ Ordinary Least Square (OLS) regression.

When analyzing the effect of tax revenue decentralization on the share of women in municipal politics I employ cross-section data analysis. The reason for excluding time series analysis is as follows. Widening women's political representation is a global trend and I expect the dependent variable to change significantly from 2008 to 2019. I thereby don't expect radical alteration (increase in political participation) to occur at some point¹². Instead, I expect changes in values to occur every year. Meanwhile, for the same period, I expect hardly any change in the index of fiscal decentralization. Indeed, fiscal decentralization also presents a widespread and sustained policy trend (IMF 2020) but in contrast to improvements in gender representation, it doesn't change from year to year. In many states covered in this study, the change between 2008 and 2018 is close to zero¹³ indicating the permanence of fiscal decentralization. Therefore, I don't consider time-series analysis to provide accurate results and hence regard cross-sectional analysis as appropriate.

The selection of time is based on the data availability. For the year of all data see [Appendix 2](#)

To start with, I ran a univariate analysis of all variables to check the normal distribution. It turned out that tax revenue decentralization, liberal democracy index, per capita GDP, and vulnerability in public services were not normally distributed. Only GDP significantly improved with log transformation which means that the variable now follows a log-normal distribution. Liberal democracy index and vulnerability in public services remained right-skewed. Therefore, I kept variables in their original form.

To gauge the effect of fiscal decentralization on women's political representation in municipal assemblies, I first made a bivariate analysis of the variables and then the multivariate analysis. Results are presented in the next section.

5. Results

In this section, the results are reported for three hypotheses of the paper. I first started with running bivariate regression analysis between the variables of main interest as well as the relationship between dependent and control variables. I thereby checked Pearson's correlation coefficient to examine the linear association of these relationships. As reported in [Table 1](#), in a bivariate regression analysis, the p-values for GDP, electoral system, the presence of gender quota are higher than 0.05, meaning that these relationships are statistically insignificant. It is

¹² except when legislative quotas are introduced as was the case in Albania

¹³ For example changes in percentage points from 2008 to 2018. Austria 0,06- 0,07, Irland 0,03-0,02, Poland 0,19-0,20. In the case of Israel, Poland and Sweden no change has been made since 2008.

also apparent that states with the higher liberal democracy index, higher levels of female participation in the labor market, and with low levels of corruption are those with higher women participation in municipal assemblies. As can be read from the table these relationships are positive meaning that the increase in each of the variables leads to the increase in the share of women councilors. They are also statistically significant meaning that correlations are “real” and didn’t occur by chance. Even the vulnerability in public services presenting the intervening variable is highly correlated with the dependent variable. r coefficient equals -0.4. The negative correlation implies that with the increase in vulnerability the share of female councilors decreases. In other words, quality public services are positively correlated with the percent of women representatives in municipal government. The correlation coefficient for fiscal decentralization and the proportion of women in sub-national legislative bodies is 0.65, indicating a moderate positive correlation. Also, the statistical significance of these relationships is obvious with a p -value of 0.000. To draw accurate conclusions, the next step is to look at multivariate regression analysis.

Table 1. Correlation and statistical significance of the two-variable relationship

	Dependent variable	Independent variable	Correlation coefficient	P value
Before	Share of female councilors	Tax revenue decentralization	0,65	0,000
	Share of female councilors	Liberal democracy index	0,36	0,022
	Share of female councilors	log_GDP	0,2	0,2
	Share of female councilors	Labor participation	0,4	0,011
	Share of female councilors	Public services	-0,4	0,01
	Share of female councilors	Proportional electoral system	-0,102	0,531
	Share of female councilors	CPI	0,36	0,02
	Share of female councilors	Local level gender quota	0,2	0,22

proceeding to multivariate regression analysis, it needs to be recognized that even if the relationship of main variables remains significant, it doesn’t necessarily indicate the existence of a causal mechanism. Instead, this correlation may be spurious. For instance, the statistical significance of the correlation between the explanatory and response variable may be due to the third variable. As the liberal democracy index remains significant in explaining the response variable, it may be the liberal democratic institutions that cause both the higher women

representation and the higher level of fiscal autonomy of municipal governments. The correlation may also be the case due to other explanatory variables.

It must also be mentioned that in a multivariate regression analysis, CPI came to be a suppressor variable for GDP. Suppressor in a linear regression increases predictive validity of the affected variable (Horst 1941:431). The inclusion of CPI in regression strengthened the effect of GDP on women's political advancement. To see if the latter was due to the suppressive effect, I employed the suppression identification method proposed by Sharpe & Robertz (1997:47). On the basis of correlation coefficients, all necessary and sufficient conditions for CPI to be a suppressor were in place. Firstly, both GDP and CPI are positively correlated with the dependent variable, and the only one, CPI is significantly correlated. Secondly, GDP is weaker in predicting ($r=0.2$) compared to CPI ($r=0.36$). Thirdly, there is a significant, strong positive correlation between these variables ($r=0.82$). To this background, I consider CPI as a suppressor variable in relation to GDP. Due to the statistical significance of corruption in explaining the dependent variable, I excluded GDP from the full model. With that, the R -squared increased from $r^2=0.468$ to present $r^2=0.537$.

In [Table 2](#) results for the main hypothesis of the study are presented. The full model tests the relationship between the level of fiscal decentralization and the share of women councilors in municipal assemblies including alternative explanations. The expectation was a positive association of the main variables of interest. When combined control variables in a multivariate regression model, all other alternative explanatory variables show to be statistically insignificant except the presence of local legal quotas. The latter means that only two variables, local legal quotas and the level of fiscal decentralization explain variance in the proportion of women in municipal assemblies. The regression coefficient in Model (1) is 0.59. This tells us that the relationship between our dependent and independent variable is positive meaning that as the level of decentralization increases, female representation also tends to increase. Hence, the main hypothesis of the study is confirmed. Countries devoting higher fiscal independence to the sub-national governments perform better in terms of gender balance in local politics.

In addition, the slope coefficient allows us to quantify the magnitude of this relationship. In model (1), for every one-unit increase in fiscal autonomy, the share of elected women in municipalities increases by 59 percentages. In Model (6), when the regression coefficient of main variables is partial (the magnitude depends upon the other variables), the steepness of the angle of the regression line decreases to 46%. However, since both, the dependent and independent variables are expressed in percentages, with higher slope value we can say that every unit increase in the level of fiscal decentralization predicts a substantial improvement in

female political participation. The adjusted *R*-squared value of 0.625 indicates that the full model accounts for 62.5 % of the variation in the share of women in local assemblies. Even in the first, in the simple model, the *R*-squared value of 0.423 is impressive. This level of accuracy when I didn't account for any of the control variables or the explanatory variables at the individual level indicates that tax revenue decentralization explains women's local political participation well.

It needs to be recognized that when replacing the dependent variable with the variable named *progression*, results are statistically non-significant. The variable *progression* expresses the increase of women local councilors in percentages from 2008 to 2018. The result remains statistically insignificant even when I drop countries with already high women representation (>35%) in 2008. The latter means that the model does not describe progression but the current state of affairs.

It is also worth noting that when replacing the dependent variable with the share of elected women in regional assemblies, here again, there was a moderate positive statistically significant relationship between the dependent and independent variable ($r=0,44$; $p<0.01$). Yet when running a multivariate regression analysis, the *p*-value increases so that findings are not statistically significant. Thus, findings apply only to the local level.

In addition, to mark the explanatory strength of the independent variable, I tried to control for the past data on the share of women councilors in municipal assemblies. Since the past is an important determinant of the present, it is the best control variable to measure the strength of the explanatory variable. However, in the full model, with the 2008 data as a control variable, the statistical significance of tax-revenue decentralization disappeared (See Table 5).

Table 2. Relationship between tax revenue decentralization and elected women in municipal assemblies

Explanatory variables	(Model 1) Share of female councilors	(Model 2) Share of female councilors	(Model 3) Share of female councilors	(Model 4) Share of female councilors	(Model 5) Share of female councilors	(Model 6) Share of female councilors
Tax revenue decentralization	0.590*** (0.11)	0.529*** (0.11)	0.529*** (0.11)	0.472*** (0.10)	0.469*** (0.10)	0.463*** (0.11)
Labor participation		0.254 (0.15)	0.118 (0.20)	0.331 (0.19)	0.347 (0.19)	0.342 (0.19)
Liberal democracy index			7.285 (7.10)	7.464 (6.32)	7.579 (6.21)	7.015 (7.03)
Local level gender quota				7.076** (2.19)	7.434** (2.17)	7.536** (2.27)
Proportional electoral system					-3.414	-3.370

					(2.27)	(2.31)
CPI						0.014
						(0.08)
Constant	21.565***	9.029	11.300	-1.517	0.195	0.047
	(1.74)	(7.52)	(7.83)	(8.03)	(7.97)	(8.12)
r2	0.423	0.466	0.481	0.600	0.625	0.625
N	40	40	40	40	40	40

Standard errors in parantheses

*** p<0.01, ** p<0.05, * p<0.1

Further, I proceeded to test the second hypothesis of the study. Higher levels of vulnerabilities in public services were expected to have a negative effect on the proportion of women in municipal assemblies. As presented in Table 3 Model (1) the slope for the relationship between vulnerability and representation is negative which is in line with our expectations. The higher the vulnerabilities in public services, the fewer women in municipal assemblies. Yet, a correlation between the main variables of interest was true only in a bivariate model. After adding control variables, the statistical significance of vulnerabilities in public services disappeared. Indeed, the local legal quotas and labor participation show to be stronger predictors for the inclusion of women. However, findings contradict hypothesis (2) meaning that when accounting for alternative explanatory variables, there is no statistically significant relationship between vulnerabilities in public services and the exclusion of women from locally elected seats.

Table 3. Relationship between vulnerabilities in public services and the share of women in municipal assemblies.

Explanatory variables	(Model 1) Share of female councilors	(Model2) Share of female coucilors	(Mode3) Share of female councilors	(Model4) Share of female councilors
Public service	-2.997*	-2.378	-2.754	-0.804
	(1.11)	(1.96)	(1.78)	(1.97)
CPI		0.047	0.111	0.110
		(0.12)	(0.11)	(0.11)
Local level gender quota			8.216**	9.549**
			(2.72)	(2.70)
Labor participation				0.465
				(0.23)
Constant	35.578***	31.359**	25.721*	-3.286
	(2.80)	(11.32)	(10.41)	(17.66)
r2	0.160	0.164	0.333	0.401
N	40	40	40	40

Standard errors in parantheses

*** p<0.01, ** p<0.05, * p<0.1

In what follows, the results for the Hypotheses (3) are interpreted. In this full model, a higher level of fiscal decentralization was expected to have a positive effect on the reduction of public

service vulnerabilities. Also, here I included the alternative explanatory variables. This time, I chose to include variables that on the theoretical basis may affect the intervening variable. Thereby the model consists of three control variables. Population density, CPI, and GDP. As outlined in Table 4, population density is significant but loses its significance when I add CPI. In turn, the statistical significance of CPI lasts until I add per capita GDP. However, the level of decentralization was significant even when GDP was included in the model. Our finding is in line with empirical evidence provided in previous studies. The level of fiscal decentralization is correlated with the quality of public services. The slope is negative in all the models, for all the variables, meaning that there is an inverse relationship between vulnerability in services and the explanatory variables, decentralization, population density, CPI, and GDP. The *R*-squared value is impressively high, at 0.809 meaning that the full model accounts for 80.9% variation in the provision of public services. Based on the results, we can confirm H(3).

Table 4. Relationship between tax revenue decentralization and vulnerability in public services

	(Model 1) Share of female councilors	(Model 2) Share of female councilors	(Model 3) Share of female councilors	(Model 4) Share of female councilors
Tax revenue decentralization	-0.044*	-0.053**	-0.009	-0.023*
	(0.02)	(0.02)	(0.01)	(0.01)
Population density		-0.004*	-0.001	-0.000
		(0.00)	(0.00)	(0.00)
CPI			-0.049***	-0.012
			(0.01)	(0.01)
Log_GDP				-0.827***
				(0.17)
Constant	2.792***	3.366***	5.325***	5.918***
	(0.28)	(0.35)	(0.37)	(0.32)
r ²	0.134	0.256	0.676	0.807
N	40	40	40	40

Standard errors in parantheses

*** p<0.01, ** p<0.05, * p<0.1

6. Regression diagnostics

To ensure the reliability of the results, I ran regression diagnostics. Tables and graphs are presented at the end of the paper. To start with, I checked for the linearity assumption of dependent and independent variables. To graphically illustrate, I draw a scatter plot with a fitted line. As we can observe in Figure 2, points on the scatterplot closely resemble a fitted line meaning that the regression model is linear (Kellstedt & Whitten 2018).

Furthermore, I checked for the multicollinearity assumption. With that, we can see if the independent variable and control variables highly correlate with each other. If it is a case, then

the OLS parameters cannot be estimated (Kellstedt & Whitten 2018: 264-266). As demonstrated in [Table 6](#), the VIF score for all the variables ranges from 0.16 to 0.85 indicating no perfect multicollinearity of the variables.

Further, I checked for one more OLS regression assumption, for the so-called homoscedasticity which is the homogeneity of variance of the residuals (Kellstedt & Whitten 2018:208). To do so, I issued the RVE command in Stata. As illustrated in [Figure 3](#), at reference line $Y=0$ the data is randomly dispersed around the horizontal axis without any distinct pattern. The latter means that linear regression is an appropriate method for the data.

The last step was checking for possible outliers. Georgia, Estonia, and Greece present outliers with Cook's distance ranging from 0.1 to 0.3 (See [Figure 4](#)). To remove the disproportionate effect of the outliers I dropped all outlier observations. This resulted in an improved regression model. As presented in [Table 7](#), legislated gender quotas along with the fiscal decentralization index are statistically significant explanations in the variance of our dependent variable. Interestingly, proportional electoral systems turn to be negatively correlated with the share of female municipal councilors, meaning that states with proportional electoral system perform worse in terms of gender balance in municipal government. The adjusted *R*-squared improved so that reached a value of 0.709.

7. Discussion

As covered, the statistical analysis finds support for the main hypothesis of the study. It showed to be true that states with a higher level of fiscal decentralization perform better in terms of gender-balanced politics at the municipal level. This finding is robust to alternative explanations. The model is further improved by excluding outliers. It is of weight to find that the level of fiscal decentralization plays a key role in explaining female representation in municipalities. Alternative explanations such as proportional electoral system, liberal democracy index, corruption perception index, labor participation turned out to be insignificant when regressed with decentralization index. Hence, this work is an important contribution to the existing literature on state architecture and women's political empowerment. It also presents an additional piece to the arguments in favor of decentralization reforms. However, it must be emphasized again that since tax-revenue decentralization does not include political or administrative decentralization indicators, the autonomy over policy decision-making, policymaking, and policy implementation is not

expressed in statistical tables. Instead, tax revenue decentralization is used as a proxy to decentralization in general.

Results in hypothesis 3 suggest that there is a statistically significant relationship between decentralization and the quality of public services. Indeed, the inclusion of GDP and CPI as alternative explanatory variables in this model was challenging for the statistical significance of fiscal decentralization. When adequate economic resources are missing, the local government may not be able to provide promised benefits with decentralization (Bardhan & Mookherjee 2006). Likewise, corruption in public expenditure constraints the delivery of public services (Mishra 2019). Even with the inclusion of these variables, fiscal decentralization remained statistically significant. However, the positive effect of decentralization on the improvements in public services is not a discovery. This relationship is broadly confirmed in the literature. Hence, findings in this paper contribute to the broader literature in terms of geographical focus.

In contrast to the first and third hypotheses, the second hypothesis of the study is not confirmed. The relationship between vulnerabilities in public services and the share of women in municipal assemblies is not statistically significant.

As the quality of public services shows no effect on women's inclusion in municipal government the relationship between decentralization and representation may take place due to other factors. As mentioned in a literature review, scholars argue that local politics is the most favorable tier of government for women due to better logistics, acceptance, and motivational factors to mention a few. However, Local governments are entrusted with providing a wide range of public services. Some of them are more gender-responsive than others. Since in a bivariate model there is a statistically significant relationship between the quality of public services and the percentage of women in municipal governments. It is worth delving deeper to see if a narrower definition of public services is significant in explaining women's recruitment even in a multivariate model. Instead of focusing on public services in general it would be insightful to focus on services that meet women's needs. Furthermore, measures for vulnerabilities in public services are nationally representative but there might be significant differences in vulnerabilities in urban versus rural areas and provinces. Ideally, future works should focus on the municipal indicator for the presence or absence of public services.

The findings of this study are representative of 39 states. Only two states located outside Europe are included. The latter may question the generalizability of findings because, from a global perspective, states in Europe are homogenous in terms of values, culture, liberal

democratic institutions, economic, and government performance. Hence one could argue that results only apply to the European context. However, the worst European states are not better performing than the best states in other parts of the world.¹⁴

Regarding the direction of causality in this relationship, I can hardly believe that councilors at the local level rather than the national level politicians can influence the level of fiscal decentralization granted to subnational units. At the same time, there are no theoretical reasons to believe that the opposite direction may be the case.

The main constraint of the study was data availability. Ideally, the study should cover some more states outside Europe. But such data on the percentage of locally elected women are not available for other states. At least to my knowledge.

One more limitation is concerning the independent variable of the study. As previously described the ideal way of measuring decentralization is the combination of political and fiscal. But due to data availability, I accounted only for tax revenue decentralization. Therefore, we need to be cautious to draw conclusions. It is not the increase in decentralization that correlates with the advancement of women in municipal politics. But it is tax revenue decentralization, as one of the crucial dimensions of fiscal decentralization. It should be emphasized, however, that data reliability can be questioned. While the data is extensive and standardize, it is self-reported and comes from the statistical authorities of countries which may not be precise in terms of accuracy. Furthermore, standardization of the data implies a less accurate account for details (IMF 2020). Missing values present one more significant limitation.

8. Conclusion

This paper contributes to the literature on women's political representation in several ways. I found that states devoting higher fiscal independence to sub-national units are the ones with the highest women participation in municipal assemblies. Hence, High levels of tax revenue decentralization indicate favorable conditions for women's recruitment in politics. This study also showed that legislated gender quota forms wider women representation in the municipal governments. The latter is a piece of additional empirical evidence to the literature exploring the effects of gender quota. Likewise, the link between tax revenue decentralization and improvement in public services is confirmed. However, quality public services show to be

¹⁴ For example, the tax revenue decentralization index in Japan (0,39) is far better than in Bulgaria (0,04). Or the liberal democracy index in Tunisia is way higher (0,64) than in Bulgaria 0,467.

statistically insignificant in explaining representation variance. It may be due to a broad definition of it. Perhaps, not all interventions in public services produce greater equality among citizens. The alternative way is to look at the infrastructure services as one of the women responsive policies. As I already mentioned, the quality infrastructure services may serve as a gender transformative mechanism. An extension of this paper could include narrowed definition of public services as a causal pathway from decentralization to women's political participation. It would also be insightful to include states outside Europe.

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Appendices, tables and figures

Appendix 1

Country	number of municipalities (cities, councils and municipal districts)	number of regions
Albania	61	12
Austria	2,096	9
Belgium	589	3
Bosnia and Herzegovina	145	10
Bulgaria	265	
Croatia	555	21
Cyprus	380	
Czech Republic	6,258	14
Denmark	98	5
Estonia	265	
Finland	311	19
France	36,658	13
Georgia	64	
Germany	11,042	16
Greece	332	13
Hungary	3,178	19(provinces)
Iceland	72	
Ireland	131	3
Israel	257	
Italy	7,954	20
Latvia	119	5
Lithuania	60	
Luxembourg	102	
Malta	68	
Moldova	898	35
Netherlands	390	12
North Macedonia	81	
Norway	422	18
Poland	2,477	16
Portugal	3,400	2
Romania	3,188	41
Serbia	174	2
Slovakia	2,980	8
Slovenia	212	
Spain	8,176	19
Sweden	290	21
Switzerland	2,212	26
Turkey	19,725	
Ukraine	10,855	24

Appendix 2

Variable	Source	Year of data
Tax revenue decentralization	IMF	2018
Locally elected women	EIGE, CEMR	2019
Public services	The Fund for Peace	2019
Electoral system	Institute for Democracy and Electoral Law	2020
Local level legislated quota	Institute for Democracy and Electoral Law	2019
Labor force participation	World Bank (original source ILO)	2019
Liberal democracy index	V-Dem	2019
Population density	World Bank	2019
GDP per capita	World Bank	2019

Table 5

	(1)	(2)	(3)	(4)	(5)	(6)
	mun_council	mun_council	mun_council	mun_council	mun_council	mun_council
	b/se	b/se	b/se	b/se	b/se	b/se
percentage	0.590*** (0.11)	0.529*** (0.11)	0.529*** (0.11)	0.209 (0.11)	0.213 (0.11)	0.215 (0.11)
labor_part		0.254 (0.15)	0.118 (0.20)	-0.001 (0.15)	0.001 (0.15)	0.004 (0.16)
lib_dem			7.285 (7.10)	1.718 (5.45)	1.793 (5.53)	1.982 (6.29)
muncoun_2008				0.592*** (0.11)	0.586*** (0.11)	0.585*** (0.12)
elect_system== 1.0000					-0.540 (2.01)	-0.562 (2.06)
CPI_2019						-0.004 (0.07)
Constant	21.565*** (1.74)	9.029 (7.52)	11.300 (7.83)	11.158 (5.90)	11.533 (6.14)	11.526 (6.23)
r2	0.423	0.466	0.481	0.714	0.714	0.714
N	40.000	40.000	40.000	40.000	40.000	40.000

Figure 2

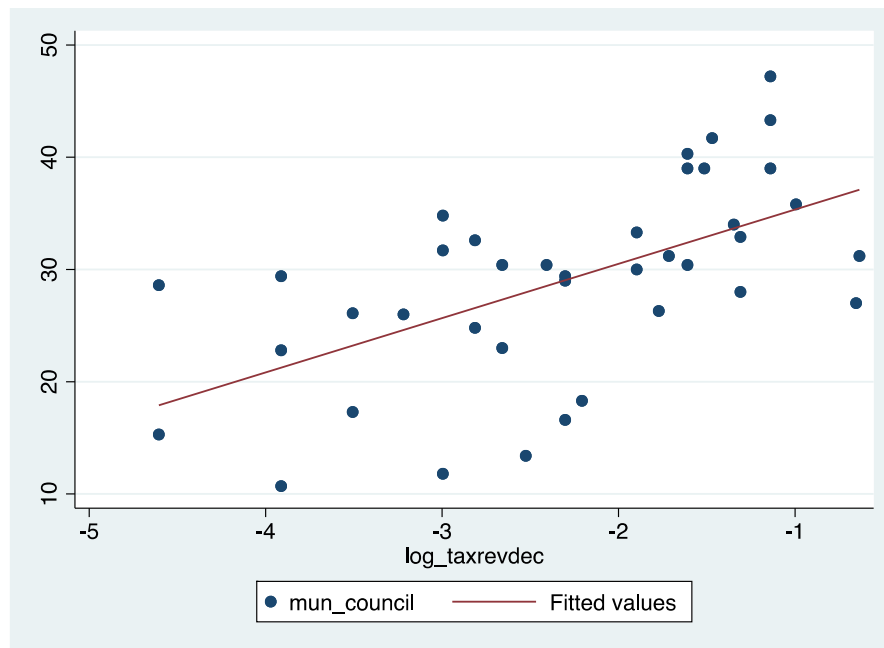


Table 6

Variable	VIF	1/VIF
log_GDP	5.99	0.166844
CPI_2019	3.79	0.264085
lib_dem	3.55	0.281823
labor_part	2.32	0.430847
leg_quota	1.47	0.679930
proportional	1.17	0.853762
Mean VIF	3.05	

Figure 3

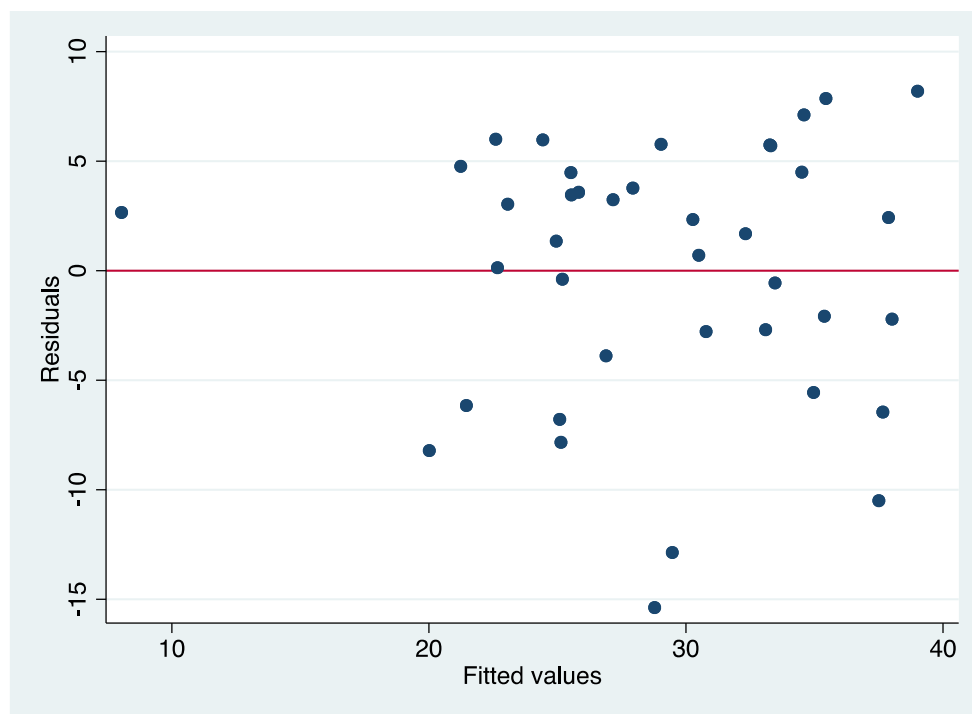


Figure 4 Cook's distance

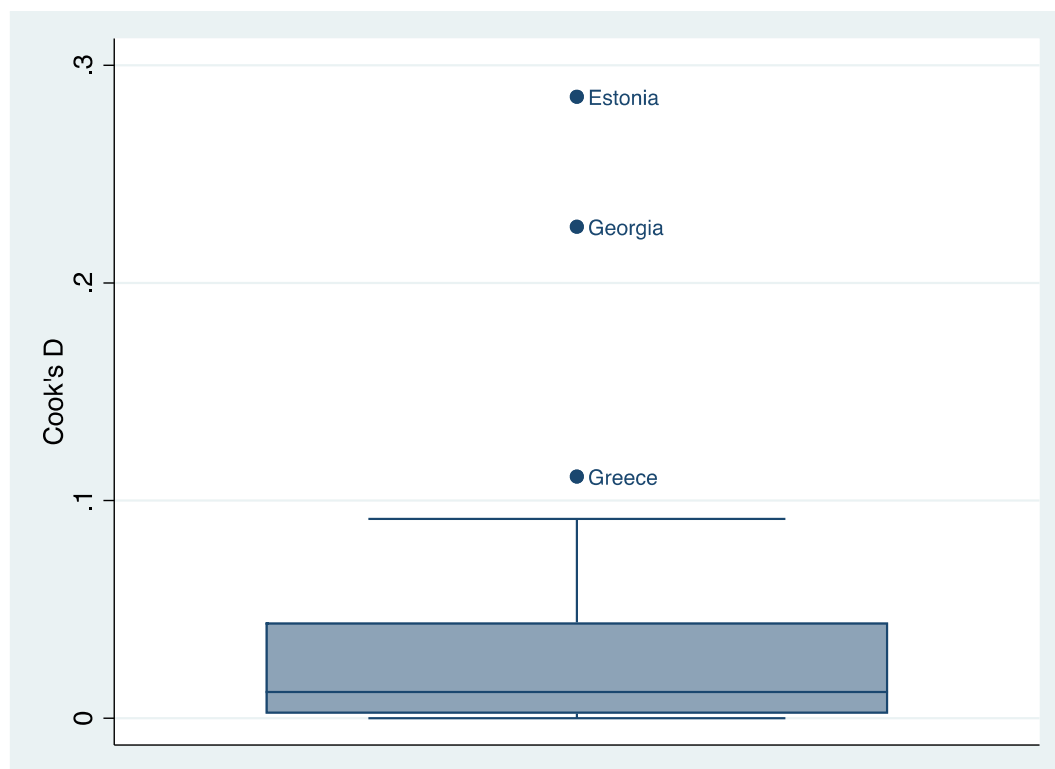


Table 7 multivariate regression table without outliers

	(Model1) Share of female councilors	(Model2) Share of female councilors	(Model3) Share of female councilors	(Model4) Share of female councilors	(Model5) Share of female councilors	(Model6) Share of female councilors
	b/se	b/se	b/se	b/se	b/se	b/se
Tax-revenue decentralization	0.575*** (0.11)	0.510*** (0.11)	0.507*** (0.12)	0.441*** (0.10)	0.438*** (0.09)	0.419*** (0.10)
Labor participation		0.254 (0.15)	0.142 (0.21)	0.320 (0.18)	0.377* (0.17)	0.342 (0.17)
Liberal democracy index			5.755 (7.37)	7.776 (6.29)	6.358 (5.86)	2.506 (7.26)
Local legal quotas				7.677*** (2.08)	8.004*** (1.93)	8.623*** (2.06)
Proportional electoral system					-5.261* (2.10)	-5.131* (2.11)
CPI_2019						0.080 (0.09)
Constant	22.090*** (1.80)	9.694 (7.37)	11.761 (7.87)	-0.511 (7.48)	1.665 (6.98)	1.115 (7.03)
r2	0.432	0.478	0.488	0.640	0.701	0.709
N	37	37	37	37	37	37